

REMARKS

Applicants thank the Examiner for the first complete examination of the instant application. Claims 1-8 are currently pending in the instant application. Reconsideration of this application, as amended, is respectfully requested.

DRAWINGS OBJECTION

The drawings stand objected to by the Examiner.

For those drawings that include reference numerals that point to specific states of the state diagrams illustrated in the figures, Applicants have amended the specification to properly reference the reference numerals of the figures. The Examiner is respectfully requested to refer to Amendments made to pages 9 and 10 of the Specification.

The Examiner further raises issue regarding the periodic reference to specific states illustrated in Figure 7. Those states that are not referenced by reference numerals are specifically referred to by referencing the actual state numbers. However, in the Specification, Applicants have amended the disclosure to properly refer to reference numerals indicating states for those states that are indicated as such.

Additionally, Applicants have amended the specification to properly refer to Figure 9 as Figures 9a and 9b, and Figure 10 as Figure 10a and 10b.

In view of the above comments, Applicants respectfully submit that the drawing objection has been obviated.

Claim Rejections Under 35 U.S.C. §112.

Claims 1-8 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the

art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In addition, claims 1-8 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. These rejections are respectfully traversed. Figure 2 of the instant application illustrates steps of a method for generating control of the complete process. Figure 2 is described in detail on pages 6-8 of the instant application. In particular, the second full paragraph of page 6 sets forth that step 202 identifies functionalities or structuring of individual processes, as well as controllable and uncontrollable events. Furthermore, step 202 identifies sequences of events which represent a possible physical system behavior. These sequences of events are identified with respect to a specific system behavior under the influence of a certain control. The further description relating to certain functionalities and structuring related to a specific system are described, in detail, throughout the specification. Therefore, Applicants fail to understand why the Examiner has taken the position that a method and apparatus directed to automatically verifying an interplay of functionalities are not sufficiently described in the specification. The Examiner is respectfully requested to clarify his position with regard to the foregoing in response hereto.

The Examiner asserts that the specification is not enabling for a processor unit that can stimulate or observe the system or system behavior. However, the specification, page 4, second full paragraph, describes that "a processor unit may be provided and set up in a manner that functionalities of individual processes can be identified." Obviously, this processor is implemented with program code written in programming languages C or C++, such that the novel processes of the instant application may be implemented. Those of ordinary skill in the art

are keenly aware as to how programming code, in the form of firmware, may be implemented on processor devices.

The Examiner maintains that the specification does not describe how a validation result is produced. The Examiner is respectfully requested to refer to Figure 2 of the instant application where validation decision block 202 is illustrated. According to the specification, a validation 202 is carried out in that a plausibility check of the structure 202 of the complete process to be controlled as effected by observation or stimulation of the system and of the specific system behavior in the form of a state machine. At least a part of the validation process according to the present invention is completely described on page 7, starting at the first complete paragraph through the disclosure set forth on page 8. The Examiner is respectfully requested to refer to these indicated pages of the instant specification.

The Examiner maintains that the specification fails to set forth the designation of an automatic placement machine. However, as is illustrated in Figure 1 and described on page 5 of the instant specification, an automatic placement machine may include a turret head 101. Obviously, if an automatic placement machine is set forth in the instant specification, certainly such a machine may be designated.

The Examiner indicates that the subject matter of claim 7 is not properly described in the specification. The Examiner will note that the final paragraph of page 2, which bridges page 3, sets forth that the method of the present invention "may be applied to controlling individual processes of an automatic placement machine, and may also involve controlling a technical installation with data determined for controlling the complete process." The further disclosure on page 3 of the instant specification clarifies in detail what an embodiment of the present

invention is capable of achieving. Therefore, the Examiner's position with regard to the subject matter of claim 7 is unsustainable.

Dependent claim 5 sets forth subject matter indicating that an impending process may occur. The Examiner maintains that this is contrary to that which is set forth in independent claim 1. The Applicants do not believe that this is the case. Dependent claim 5 merely sets forth that impending process may occur, thereby further limiting independent claim 1 to the situation where an impending process does occur. Therefore, the subject matter in claim 5 in conjunction with the subject matter of independent claim 1 sets forth a possibility of both an impending process and a process which does not include an impending process.

The subject matter of dependent claim 2 merely describes a situation where the methods set forth in independent claim 1 are processed in a sequential manner. This is in distinction to the possibility of processing the steps in a parallel manner. This sequential and parallel processing process according to the present invention is described in detail in the last full paragraph of page 8.

In accordance with the above amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the claim rejections under 35 U.S.C. §112.

Claim Rejections Under 35 U.S.C. §102.

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. §102(b) as being anticipated by Edwards et al., (U.S. Patent No. 5,742,823). In addition, claims 1, 3-4 and 7-8 stand rejected under 35 U.S.C. §102(e) as being anticipated by Alferness et al. (U.S. Patent No. 6,247,064). These rejections are respectfully traversed.

Independent claim 1 sets forth a combination of limitations including “performing a validation by automatically verifying an interplay of each functionalities in accordance with an input to set complete process, while not impeding said individual process during an operation, producing a validation result; and determining data for controlling said complete process from said validation result.” Independent claim 8 sets forth an arrangement including similar limitations as that set forth in independent claim 1. Applicants respectfully submit, for the following reasons, that neither the patent documents relied upon by the Examiner teach or suggest at least the indicated limitations of the independent claims.

Edwards et al. teach a total object processing system and method that include assembly line features and certification of results. According to Edwards et al., the system and method include a processor system 10 that has a user interface facility 12, an application controller 14, an application analyzer and setup facility 16, a queue analyzer and generator facility 18, a plurality of discrete processing elements 20, and a communication bus system 22 electrically linking or communicating the system elements for communication and data transfer. (See Col. 4, lines 14-25.)

The application controller 14 controls and manages execution of processes on elements 20, and works in conjunction with application analyzer and setup facility 16 to analyze a process to be executed, separate the process into a plurality of process functions and specifications, and assign the process functions to one or more elements 20 for execution. Processes to be executed include a process network structure which is read by controller 14. (See Col. 4, lines 45-54.)

The application controller 14 functions in conjunction with the queue analyzer and generator facility 18. In accordance therewith, the controller 14 analyzes a process to be executed, to extract data input requirements and data output requirements necessary for

executing a particular process function. In addition, the signal facility 18 generates data input queues and data output queues for providing information to the element or elements 20 currently executing a particular process function and for receiving data output values from elements 20 after execution. (See Col. 4, lines 56-65.)

Although Edwards et al. do teach a system for controlling process functions, the disclosure of the patent document fails to teach or suggest “performing a validation by automatically verifying an interplay of said functionalities in accordance with an input to said complete process, while not impeding each individual process during an operation, producing a validation result; and determining data for controlling said complete process from said validation result.” (Emphasis added.)

Alferness et al. teaches an instruction process in the system architecture for improved message passing and processing synchronization. According to the Examiner, the system taught by Alferness et al. includes a validation process similar to that which is set forth in the independent claims of the instant application. Determining whether the Examiner is correct in his position requires careful analysis of the flow diagrams illustrated in Figures 3-15.

According to the processes that are illustrated in Figures 3-15 in the relied upon patent document, the only validation process described has to do with queue bank descriptor (QBD) headers. That is, these queue headers must be verified in order to ensure that there are no errors. The specific error checking process is described in detail in Col. 6, lines 6-28.

Although a validation process is described in the relied upon patent document, this described validation process does not relate to the validation process disclosed in the independent claims of the instant application. In particular, “performing a validation by automatically verifying an interplay of said functionalities in accordance with an input to said

complete process, while not impeding each individual process during an operation, producing a validation result; and determining data for controlling said complete process from said validation result.” (Emphasis added.)

With regard to the rejected dependent claims, Applicants respectfully submit that these claims are at least allowable due to their dependence upon allowable independent claim.

In view of the above amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the claim rejections under 35 U.S.C. §102.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-8 in connection with the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants hereby petition for a three (3) month extension of time for filing a reply to the outstanding Office Action and submit the required \$930.00 extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Timothy R. Wyckoff at the telephone number of the undersigned below.

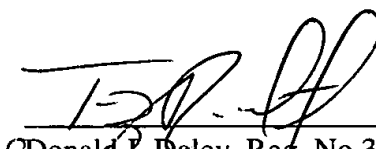
In the event this Response does not place the present application in condition for allowance, applicant requests the Examiner to contact the undersigned at (703) 668-8000 to schedule a personal interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKY, & PIERCE, P.L.C.

By



Donald J. Daley, Reg. No. 34,313
P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

DJD/TRW/cng